

16283200 KAHALUU STREAM NEAR AHUIMANU

LOCATION.--Lat 21°26'32", long 157°50'47", Old Hawaiian Datum, Hydrologic Unit 20060000, on left bank, 1.1 mi west of Valley of the Temples Memorial Park, 1.3 mi south of Kahaluu School, and 2.7 mi northwest of Heeia Elementary School.

DRAINAGE AREA.--0.84 mi².

PERIOD OF RECORD.--October 1983 to current year.

REVISED RECORDS.--WDR HI-01-1: Drainage Area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 150 ft above mean sea level (from topographic map).

REMARKS.--Records computed by B. Shimizu. Records fair. Honolulu Board of Water Supply has diverted ground water from tunnel in drainage area since 1947. At times, farmers upstream of gage pump and/or divert small amounts of water from the stream.

AVERAGE DISCHARGE.--21 years (water years 1984-2004), 3.09 ft³/s (2,240 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 922 ft³/s, November 29, 2003, gage height 5.34; maximum gage height, 6.05 ft on Sept. 18, 1994; minimum, 0.47 ft³/s on October 20-27, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 399 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	2030	*922	*5.34	Feb 27	1445	438	3.59
Dec 7	1530	745	4.70	Aug 4	0545	595	4.15
Feb 7	2045	412	3.50				

Minimum discharge, 0.74 ft³/s, Oct. 1, gage height, 1.11 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.80	1.0	20	12	3.2	4.8	4.4	4.0	3.9	3.7	3.5	3.8
2	0.81	1.1	6.7	50	3.1	15	4.3	4.0	4.0	3.8	4.7	3.8
3	0.90	1.0	8.8	17	3.1	5.8	7.0	4.0	3.9	3.7	8.4	3.5
4	0.88	1.0	22	5.3	3.2	5.1	5.0	4.1	3.9	3.7	88	3.5
5	0.81	1.0	28	3.9	3.8	4.7	4.6	4.0	3.8	3.7	6.2	3.6
6	0.95	1.0	7.3	3.3	3.5	4.2	4.4	4.2	3.8	3.9	4.7	4.2
7	1.5	1.0	92	3.0	39	4.0	4.3	6.9	3.8	3.9	4.8	3.6
8	1.1	1.0	13	2.9	13	4.1	4.2	4.4	3.8	3.9	4.2	3.6
9	1.2	1.00	e5.9	2.8	4.7	3.8	4.1	4.2	3.9	3.9	4.1	3.6
10	1.1	0.98	e4.5	2.7	3.9	3.9	4.2	4.3	4.4	3.7	4.0	3.7
11	1.4	0.95	e3.3	2.6	3.6	4.3	4.1	7.6	4.1	3.8	4.0	3.7
12	1.4	0.95	e2.8	2.7	3.4	4.4	5.7	6.4	3.9	3.7	4.0	3.7
13	1.1	0.95	e2.5	2.6	3.3	4.1	4.4	4.7	3.9	3.8	4.0	3.6
14	1.2	0.99	e2.3	3.1	3.2	4.0	4.2	4.4	3.9	3.7	3.9	4.0
15	1.2	0.95	e2.3	2.7	3.1	3.8	13	18	3.8	3.6	3.9	3.8
16	1.1	0.95	e2.1	2.6	3.1	3.7	5.3	7.0	4.0	3.7	3.9	3.7
17	1.3	0.95	e2.2	2.6	3.0	3.8	4.6	5.2	4.7	3.6	4.1	3.9
18	1.2	1.0	e2.1	2.5	3.0	3.6	4.3	4.7	4.1	3.5	4.0	3.7
19	1.1	1.0	2.1	2.5	3.0	3.7	4.2	4.0	3.9	3.4	3.9	3.8
20	1.1	1.0	2.0	2.8	2.9	3.4	5.1	3.7	3.9	3.5	3.8	3.7
21	1.1	1.0	2.0	2.7	2.9	9.9	4.6	4.2	3.8	3.5	3.9	3.8
22	1.1	0.99	1.9	11	2.9	6.1	4.5	4.1	3.9	3.5	3.9	3.7
23	1.0	1.0	1.9	7.2	2.9	5.5	4.4	4.1	3.9	3.5	3.8	3.8
24	1.0	1.1	2.0	3.8	2.9	5.2	4.3	4.0	3.8	3.5	4.0	3.7
25	1.0	0.94	2.0	3.9	2.9	4.8	4.1	4.1	3.8	3.5	3.9	3.6
26	1.0	0.87	2.0	3.7	10	4.7	5.2	4.0	3.7	3.5	4.2	3.6
27	1.0	0.87	2.0	3.3	80	4.6	4.3	4.0	3.7	3.5	4.0	3.7
28	1.0	0.87	2.1	3.1	11	4.3	4.3	4.1	3.8	3.7	3.9	3.6
29	1.0	88	2.1	3.0	5.3	4.5	4.1	3.9	3.4	3.4	3.9	3.7
30	1.0	44	2.5	3.2	---	6.2	4.1	3.9	3.3	3.6	3.9	2.8
31	1.0	---	5.8	2.8	---	4.7	---	3.9	---	3.5	3.9	---
TOTAL	33.35	159.41	258.2	177.3	232.9	154.7	145.3	154.1	116.5	112.9	215.4	110.5
MEAN	1.08	5.31	8.33	5.72	8.03	4.99	4.84	4.97	3.88	3.64	6.95	3.68
MAX	1.5	88	92	50	80	15	13	18	4.7	3.9	88	4.2
MIN	0.80	0.87	1.9	2.5	2.9	3.4	4.1	3.7	3.3	3.4	3.5	2.8
AC-FT	66	316	512	352	462	307	288	306	231	224	427	219

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

MEAN	2.64	3.45	3.47	3.52	3.56	3.78	3.21	3.11	2.46	2.64	2.57	2.75
MAX	6.69	10.6	9.56	8.65	8.03	11.8	10.6	7.27	4.78	5.89	6.95	5.81
(WY)	(1992)	(1991)	(1988)	(1988)	(2004)	(1991)	(1989)	(2002)	(1991)	(1989)	(2004)	(1992)
MIN	0.61	1.15	0.86	0.80	1.03	0.77	0.84	0.85	0.73	0.67	0.67	0.55
(WY)	(2002)	(2001)	(2001)	(2001)	(1986)	(2001)	(2001)	(1984)	(1984)	(2001)	(1984)	(2001)

HAWAII, ISLAND OF OAHU

16283200 KAHALUU STREAM NEAR AHUIMANU—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1984 - 2004
ANNUAL TOTAL	969.69	1,870.56	
ANNUAL MEAN	2.66	5.11	3.09
HIGHEST ANNUAL MEAN			5.97
LOWEST ANNUAL MEAN			0.90
HIGHEST DAILY MEAN	92	Dec 7	142 May 6, 2002
LOWEST DAILY MEAN	0.80	Oct 1	0.47 Oct 21, 2001
ANNUAL SEVEN-DAY MINIMUM	0.81	Sep 26	0.47 Oct 20, 2001
ANNUAL RUNOFF (AC-FT)	1,920	3,710	2,240
10 PERCENT EXCEEDS	2.4	5.8	4.7
50 PERCENT EXCEEDS	1.1	3.8	2.4
90 PERCENT EXCEEDS	0.87	1.0	0.85

e Estimated